



# IDQTF Optimization of the UFP-QAPP

Background and Status Update

Ed Corl  
NAVSEA LQAO

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# Agenda Overview

- **Welcome and Introductions**
- **Update on IDQTF Optimization of UFP-QAPP**
- **Update on G-5a**
- **Quick Update on IDQTF Training**

# **IDQTF QAPP Opt. Overview**

- **IDQTF background**
- **Objectives**
- **Goals and Schedule**
- **Review of draft products**
- **Current Optimization Status**
- **Coordination with EPA G-5a**
- **Path forward/questions**

# IDQTF

- **IDQTF:** Intergovernmental Data Quality Task Force
- **Members:** EPA, DoD, DOE
- **Contributors:** State Regulators & Contract Support
- **March 2005** – UFP-QAPP Manual first published
- **June 2010** – UFP-QAPP Optimization subgroup

# Objectives

**Optimize the UFP-QAPP Worksheets by:**

- **Eliminate Redundancy**
- **Increase Ease-of-Use**
- **Promote Systematic Planning**
- **Institute Lessons Learned**
- **Provide Better Instruction**
- **Promote Consistency**
- **Reinforce the graded approach**

# Disclaimers

- **These are draft products and have not been approved by the main IDQTF body.**
- **The optimization effort is still a work in progress.**

# Optimized Worksheets

- **Worksheet 1 & 2**
- **Worksheet 3 & 5**
- **Worksheet 4, 7, & 8**
- **Worksheet 9**
- **Worksheet 10**
- **Worksheet 11**
- **Worksheet 12**
- **Worksheet 13**
- **Worksheet 14 & 16**
- **Worksheet 15**
- **Worksheet 17**
- **Worksheet 18**
- **Worksheet 20**
- **Worksheet 21**
- **Worksheet 22**
- **Worksheet 24**
- **Worksheet 25**
- **Worksheet 26 & 27**



# Optimized Worksheets w/o Significant Changes

- **Worksheet 10:** Now specifically dedicated to the CSM
- **Worksheet 11:** Remaining steps of PQO's/SPP
- **Worksheet 17:** Sampling Design (Document rationale!)
- **Worksheet 20:** Field QC – minor changes to fields
- **Worksheet 21:** Field SOPs
- **Worksheet 22:** Field equipment – Some entries can be referenced to WS21 to avoid redundancy
- **Worksheet 24:** Analytical Cal table – Ref. SOPs where appropriate to avoid redundancy

All worksheets have additional instruction (green-text) that also explains the purpose/value of the elements. The green-text would be removed in the final QAPP.

**QAPP Worksheet #1/2**  
**Title and Approval Page**  
**(UFP-QAPP Section 2.1)**  
**(EPA QA/G-5 Section 2.1.1)**

This worksheet identifies the principal points of contact for all organizations having an interest in the project and documents their commitment to implement the QAPP. Signatories usually include the lead organization's Project Manager, individual project staff, and other stakeholders who have been involved in the project and have been issued the RFP.

## What has Changed?

- Additional Instruction
  - 1 • Combined worksheets
  - 2 • Approval signatures are Mandatory
  - 3 • Redundant information removed
  - 4 • Cross-walk table can be added if necessary
5. Federal Regulatory Agency (name/title/signature/date)
  6. State Regulatory Agency (name/title/signature/date))
  7. Other Stakeholders (as necessary)
  8. List plans and reports from previous investigations relevant to this project

## QAPP Worksheet #3&5: Project Organizational Chart & QAPP Distribution

Provide a project organization chart identifying key personnel for the client (or lead agency), prime contractor, all subcontractors, and regulatory agencies. Two examples are provided below. Examples should be modified as necessary to suit the project.

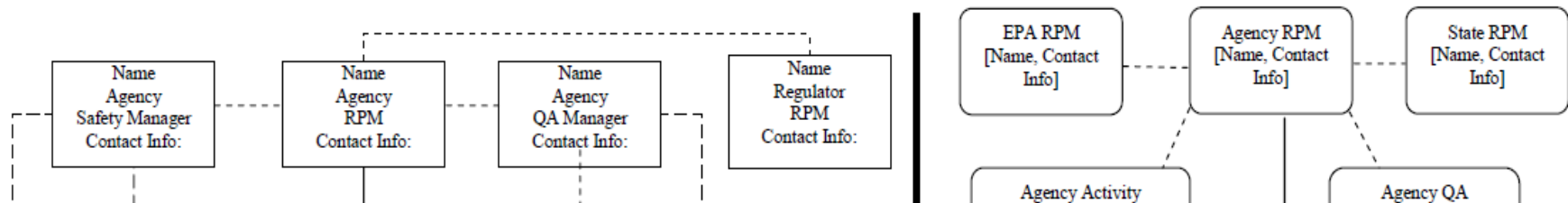
Identify reporting relationships between all organizations. Charts should include lines of responsibility (shown below as solid lines), lines of communication (shown below as dotted lines), and phone numbers. For the purpose of the draft QAPP, it is permissible to show "TBD" in cases where roles have not been assigned, but relationships between organizations and organizational roles should be noted. All key personnel must be identified in the final, approved QAPP.

For the purpose of document control, this worksheet should also be used to document recipients of controlled copies of the QAPP. The draft QAPP, final QAPP, and any changes/revisions must be provided to all QAPP recipients shown on this chart. Use asterisks or other symbol to designate QAPP recipients. Contractors and subcontractors shown on this chart are responsible for document control within their organizations.

\* QAPP Recipient

Lines of Authority —————

Lines of Communication - - - - -



## What has Changed?

- Additional Instruction
- Combined worksheets
- Visual identification of distribution, communication & organizational information
- Consistency with WS 4, 7, & 8

[Name, Contact Info]

[Name, Contact Info]

## QAPP Worksheet #4, 7, & 8: Personnel Qualifications and Sign-off Sheet

(UFP-QAPP Manual Sections 2.3.2, 2.4.3 and 2.4.4)

This worksheet is used to identify key project personnel for each organization performing tasks defined in this QAPP. In this example organizations include the prime contractor and laboratory. Add other organizations as necessary. This worksheet lists individuals' project titles or roles; qualifications; and any specialized/non-routine training, certifications, or clearances required by the project, e.g. explosives and ordnance disposal (EOD) technician, Professional Engineer, Certified Professional Geologist, etc. Add spaces as necessary. [Note: HAZWOPER training is not considered specialized training.]

ORGANIZATION Prime Contractor

### What has Changed?

- Additional Instruction/clarification
- Combined worksheets
- General Identification of qualifications & training categorized by organizations

ORGANIZATION Prime Contractor

Name	Project Title/Role	Education/Experience	Specialized Training/Certification	Location of Training Records/Certificates	Signature/Date*

**QAPP Worksheet #9**  
**Project Planning Session Summary**  
**(UFP-QAPP Manual Section 2.5.1, and Figures 9-12)**  
**(EPA QA/G-5 Section)**

## What has Changed?

- Project Planning
- Additional Instruction
- Key decision items highlighted

Name	Organization	Title/Role	Email/Phone

Notes/Comments:

Consensus decisions made:

Action Items:

Action	Responsible Party	Due Date

QAPP Worksheet #12  
Measurement Performance Criteria  
(UFP-QAPP Section 2.6.2)  
(EPA QA/G-5 Section \_\_)

## What has Changed?

- Better Instructions
- SOP fields removed due to redundancy
- “Type of error” field removed

Data Quality Indicator (DQI)	QC sample or measurement performance activity	Measurement Performance Criteria
Overall Precision	Field Duplicates	$RPD \leq 30\%$ when VOCs are detected in both samples $\geq$ LOQ
Analytical Precision (laboratory)	Laboratory Control Sample Duplicates	$RPD \leq 25\%$
Analytical Accuracy/Bias (laboratory)	Laboratory Control Samples	Analyte-specific (See Worksheet 12A)
Analytical Accuracy/Bias (matrix interference)	Matrix Spike Duplicates	Analyte-specific (See Worksheet 12A)
Overall accuracy/bias (contamination)	Equipment Blanks	No target analyte concentrations $\geq$ LOQ
Sensitivity	LOQ verification sample (spiked at LOQ)	Recovery within $\pm 25\%$ of LOQ

## What has Changed?

- Better Instructions
- “Generator” field removed due to redundancy
- Note that there is a difference between secondary data and secondary use of data

the comparability of data collection methods to the currently proposed methods.

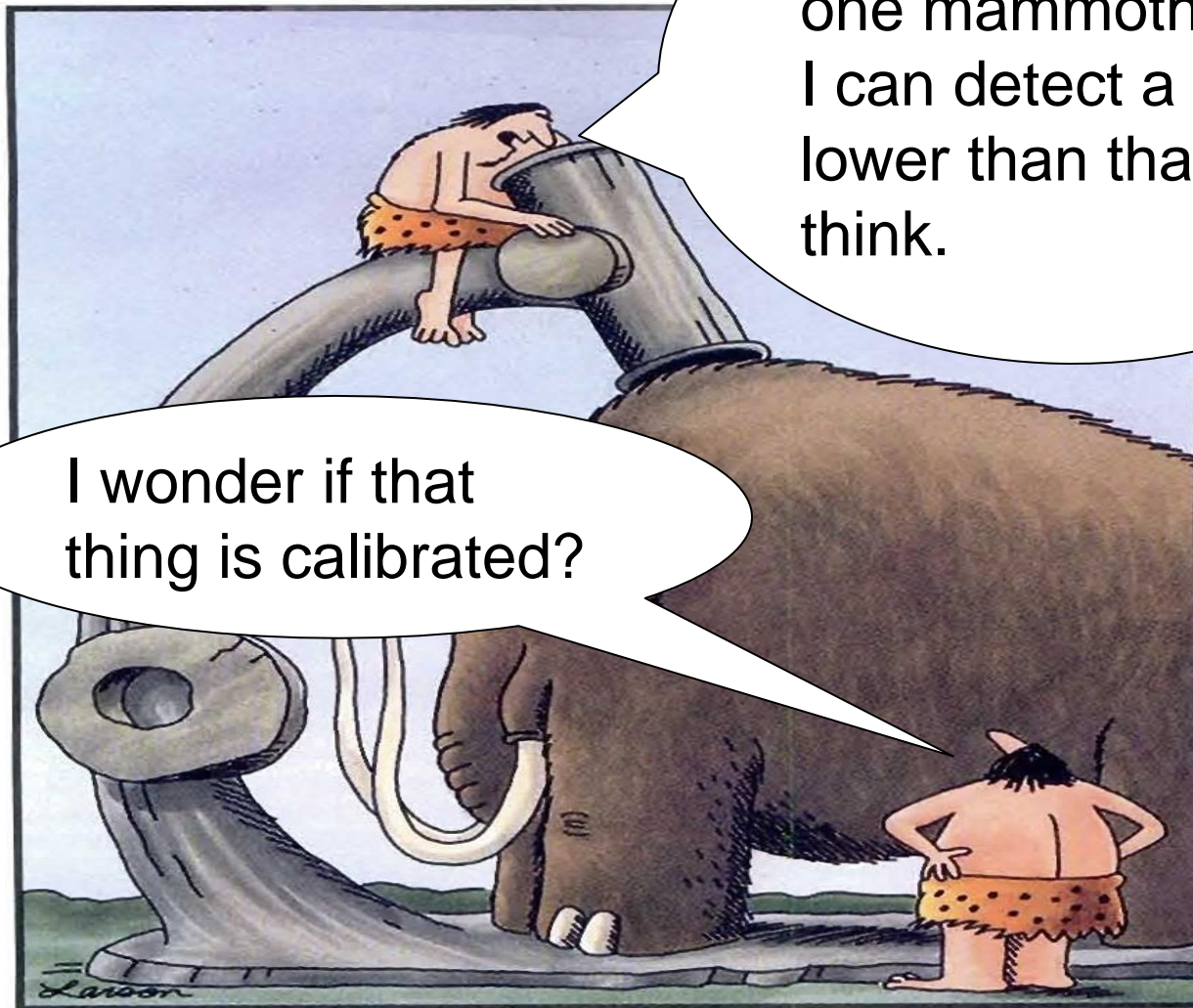
Data type	Source	Data uses	Factors affecting the reliability of data and limitations on data use

# What has Changed?

- Better Instructions
- Combined worksheets
- This information may also be available & referenced in other documentation

Activity	Responsible party	Planned start date	Planned completion date	Deliverable(s)	Deliverable due date





Our action level is one mammoth, but I can detect a lot lower than that.....I think.

I wonder if that thing is calibrated?

## Early Detection Limit Issues

# Detection Limits

***“The analytical data objective for baseline risk assessments is that the uncertainty is known and acceptable, not that the uncertainty be reduced to a particular level.”***

***“Whenever possible, methods should not be used if the detection limits are above the relevant concentrations of concern. The MDL should be no greater than 20% of the concentration of concern.”***

***“To protect human health, place a higher priority on preventing false negatives in sampling and analysis than on preventing false positives.”***

- Guidance for Data Usability in Risk Assessment, EPA Office of Emergency and Remedial Response, April 1992.

# Detection Limits, Cont.

***NCP 40 CFR 300.430(e)(2)(i): “Remediation goals shall be developed considering... technical limitations such as detection/quantification limits...”***

***RAGs, Part A, section 5.3.4 “...SQLs are the most appropriate limits to consider when evaluating non-detected chemicals.”***

***“... reported concentration (i.e., data that are not "tentative," “uncertain,” or “qualitative”) are appropriate for use in the quantitative risk assessment.***

Project Action Limits and laboratory-specific detection/quantitation limits  
(UFP-QAPP Section)  
(EPA QA/G-5 Section)

## What has Changed?

- Better Instructions
- Do not use MDL as PAL
- LOD may be added for DoD projects
- Lab DL and LOQ fields populated after procurement

Analyte	Project Action Limit	Reference (regulatory limit)	Project Quantitation Limit Goal	Method	Laboratory-specific LOQ	Laboratory-specific DL

## What has Changed?

- Some fields removed due to redundancy
- Completeness check for field
- Intended entries for each sample but global entries can be used for large projects
- QC-related samples **MUST** have separate entries

Sample ID	Location	Depth (ft)	Type	Contaminant Group	Sampling Event	Comments
CHS-GW-VOC-001	GW	20-30	Grab	VOCs	TECH-025	
CHS-GW-VOC-001D	GW	20-30	Duplicate	VOCs	"	

**SAP Worksheet #25 -- Analytical Instrument and Equipment Maintenance, Testing, and Inspection Table**  
(UFP-QAPP Manual Section 3.2.3)

**What has Changed?**

- Some or all fields may be referenced to the lab’s quality system

Instrument / Equipment	Maintenance Activity	Testing Activity	Inspection Activity	Frequency	Acceptance Criteria	Corrective Action	Responsible Person	Reference

# What has Changed?

- Combined worksheets
- Eliminated redundancies

SAMPLE LABELING, PACKAGING, AND SHIPPING	PERSONNEL AND ORGANIZATION	DESCRIPTION OF ACTIVITY OR SOP REFERENCE
Sample Labeling		
Chain-of-Custody Form Completion		
Packaging		
Shipping Coordinator		
Shipper/carrier:		
SAMPLE RECEIPT, STORAGE and DISPOSAL		
Sample Receipt, Inspection, and Log-in		
Sample Custody and Storage		
Sample Disposal		
No. of days from reporting to disposal:		

# Schedule

<b>Worksheet 23, 28</b>	<b>April 2011</b>
<b>Worksheet 19, 29, 30</b>	<b>May 2011</b>
<b>Worksheet 31, 32, 33</b>	<b>June 2011</b>
<b>Worksheet 34, 35</b>	<b>July 2011</b>
<b>Worksheet 36, 37</b>	<b>August 2011</b>
<b>Face-to-face meeting to finalize all worksheets</b>	<b>Fall 2011</b>
<b>Begin Optimization of UFP-QAPP Manual ?????</b>	<b>Winter 2011</b>



# True/False

- **Systematic planning and the UFP-QAPP takes more time and money than previous QAPP development processes.**

**False! UFP-QAPP is a team-based effort and does require additional planning and coordinated decision-making. However, overall savings are being realized in preventing re-work through higher confidence and documentation in decisions.**

# True/False

- **Do the RPMs really need to be involved with confusing topics like detection limits, data usability, and analytical method selection?**

**YES! RPMs should have a working knowledge of issues that affect decision-making but still rely on their technical support staff. The IDQTF does recognize that we need to identify the needs of the RPM's and assist project teams with appropriate training on some of these issues.**

# True/False

- **So technical support staff need to be present during project planning sessions?**

**FALSE!** RPMs should decide upon the need and extent of technical support. In addition, planning can be done internally/externally and can be done by phone or e-mail. But, it is important to involve them early in the planning steps.

# True/False

- **The UFP-QAPP is too structured/rigid and limits the project team's ability to be flexible.**

**FALSE!** That is NOT the intent of the UFP-QAPP. The graded approach is emphasized throughout the UFP-QAPP. The RPM's are still the decision-makers and they decide upon sampling design, data usability, etc. However, the UFP-QAPP does require that the rationale be documented.